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**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Docket Number (Optional)

1560-0348P

Application Number  
09/655,847-Conf.  
#9788

Filed  
September 6, 2000

First Named Inventor  
Yasuhiro ISHII et al.

Art Unit  
3682

Examiner  
W. C. Joyce

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

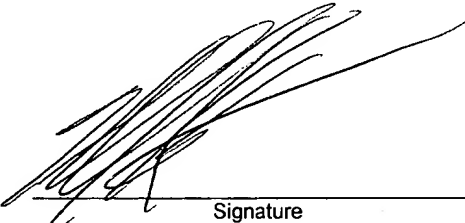
The review is requested for the reason(s) stated on the attached sheet(s).  
Note: No more than five (5) pages may be provided.

I am the

- ☐ applicant /inventor.
- ☐ assignee of record of the entire interest.  
See 37 CFR 3.71. Statement under 37 CFR 3.73(b)  
is enclosed. (Form PTO/SB/96)

☐ attorney or agent of record.  
Registration number \_\_\_\_\_

☒ attorney or agent acting under 37 CFR 1.34.  
Registration number if acting under 37 CFR 1.34. 29,680



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May 23, 2006  
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below\*.

☐ \*Total of 1 forms are submitted.



The Examiner has made clear errors in interpreting and applying the appropriate tests and applying the prior art in rejecting claims 1-4, 9, 9-12, and 14 under 35 U.S.C. § 103(a) as being unpatentable over *Kamimura* (JP 60-191758) in view of *Eda et al.* (USP 6,044,723); and rejecting claims 1-4, 7, 9-12, and 14 under 35 U.S.C. §102(e) as being anticipated by *Arai et al.* (USP 6,527,642).

**The Examiner Failed to Examine All of the Pending Claims**

The Examiner has made a clear error in failing to examine all of the pending claims.

Claims 1-7, 9-12, and 14 are pending in this application. In the outstanding Official Action on pages 3-4, the Examiner rejects all of the pending claims merely asserting as follows:

The prior art to *Kamimura* teaches a worm gear arrangement having the claimed biasing device for biasing a worm into engagement with a worm gear. *Kamimura* does not appear to disclose the worm gear arrangement being used in combination with a power steering device, however, it was known in the art to use worm gears for assisting the steering of a vehicle. For example, *Eda et al.* discloses a power assist device comprising a worm gear arrangement wherein the worm gear arrangement includes a biasing device for biasing a worm into engagement with a worm gear. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the worm gear arrangement of *Kamimura* in combination with a power steering device, as taught by *Eda et al.*, motivation being to provide a means for adjusting the biasing force and/or the engagement of the worm gears.

Referring to *Kamimura*, it is noted that the concave member is formed with a bore for accepting the bearing. In the event applicant further defines the claims so as to preclude the illustrated bore of *Kamimura*, the claims will be rejected because forming the bore as a recessed portion, such as a semi-circular portion, would have been obvious to one in the art in order to reduce the material needed in forming the concave member.

Applicants respectfully submit that the assertions set forth in the Official Action fail to address any of the elements recited in the dependent claims, and further, fail to address all of the elements as recited in the independent claims. For example, the Examiner has failed to examine "said worm shaft is deflectable in a side of said worm shaft, interlocked with an output shaft of said electric motor and an interlocking member interlocking said worm shaft and said output shaft is provided therebetween" as recited in claim 2, "said worm shaft is supported in a gear housing

having a tapped hole, and said biasing member includes a screw body tightly fastened in said tapped hole and a spring body interposed between said screw body and said worm shaft” as recited in claim 3, etc. Similarly, the Examiner has failed to consider the elements of claims 1, 4, 10, 11, and 14.

In addition to failing to examine all of the pending claims, the Examiner has failed to provide any support for his assertions set forth in the Official Action. The Examiner merely asserts conclusory statements regarding the teachings of the cited references without providing any citations to the cited references. Applicants respectfully note that there are a plurality of configurations of the device disclosed in the *Kamimura* reference.

As the Examiner has failed to provide Applicants with specific citations to the cited references, and, further, has failed to examine all of the pending claims, Applicants cannot properly respond to the purported rejections asserted by the Examiner.

**The Examiner Fails to Establish a  
Prima Facie Case of Obviousness Under 35 U.S.C. § 103**

The Examiner has made clear error in stating certain claim elements are taught by taking an unduly broad interpretation of the teachings of the prior art.

In order to sustain a rejection under 35 U.S.C. § 103(a), it is respectfully submitted that the Examiner must meet his burden to establish a *prima facie* case. “To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all of the claim limitations.” *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

In support of the Examiner’s rejection of the claims, the Examiner asserts that *Kamimura* teaches a worm gear arrangement having the claimed biasing device for biasing a worm into

engagement with a worm gear. The Examiner provides no indication to the Applicants as to what embodiment of *Kamimura* the Examiner is relying upon. During an Interview with the Examiner, the parties agreed that at least Fig. 1 fails to teach the elements as recited in the claims. Specifically, the parties agreed that *Kamimura* fails to disclose a concave member accepting the bearing and a housing for housing said bearing and said concave member wherein the biasing member is movably acceptable only toward the concave member.

In addition, Fig. 2 fails to teach the elements asserted by the Examiner. *Kamimura* discloses, in Fig. 2, removal of backlash between the worm wheel 2 and the worm 8 and the rotation torque of the operation handle 9 being executed by changing a thickness and a number shims 10 and 11 interposed between the bearing cases 3 and 4 and an inner surface of the housing 1, and adjusting a screwing amount of adjusting screws 12 and 13 pressing the bearing cases 3 and 4 toward to the worm wheel.

In contrast, the present invention as set forth in claim 7 recites, *inter alia*, an electric power steering apparatus comprising a biasing member biasing, via a bearing, the worm shaft toward the worm wheel, a concave member accepting the bearing, and a housing for housing the bearing and the concave member, wherein the biasing member is movably acceptable only toward the concave member. Applicants respectfully submit that the teachings of *Kamimura* as depicted in Fig. 2 fails to teach or suggest these claim elements.

Additionally, with regard to Figs. 3 and 4, *Kamimura* discloses the pressing force of the pressing means 60 being directly applied to the worm 23. A pair of brackets 51 and 52 are separated in the axial direction of the transmission shafts 25 and are integrally formed in a side close to the transmission shaft 25 of the slider 41, and a pair of pins 53 and 54 which are in parallel to an axis of the worm 23 are attached to the brackets 51 and 52.

However, there is no teaching or suggestion in *Kamimura* that is directed to a biasing member biasing, via a bearing, the worm shaft toward the worm wheel, a concave member accepting the bearing, and a housing for housing the bearing and the concave member, wherein the biasing member is movably acceptable only toward the concave member.

*Eda et al.* fails to cure the deficiencies of the teachings of *Kamimura* as *Eda et al.* fails to teach or suggest these claim elements. As such, Applicants respectfully submit that neither of these references, either alone or in combination, teach or suggest all of the claim elements. Applicants maintain that claim 7 is not obvious over the references as cited. It is respectfully requested that the outstanding rejection be withdrawn.

It is respectfully submitted that claims 1-4 and 14 are allowable for the reasons set forth above with regard to claim 7 at least based upon their dependency on claim 7. It is further respectfully submitted that claims 9 and 12 include elements similar to those discussed above with regard to claim 7 and thus these claims, together with claims dependent thereon, are not obvious for the reasons set forth above with regards to claim 7.

As the Examiner has failed to provide references that teach or suggest all of the claim elements, the Examiner has failed to satisfy his burden under 35 U.S.C. § 103 in establishing *prima facie* obviousness.

**The Examiner Fails to Properly Consider Applicants' Claim for Priority**

The Examiner has made clear error in stating Applicants' claim for priority is untimely.

The Examiner rejected Applicants' claim for priority asserting the claim must be made within the later of four (4) months from the filing date of the application or 16 months from the actual filing date of the prior application citing to MPEP § 201.11 Section E. Applicants respectfully disagree that this is the applicable rule for the present application.

The present application was filed September 6, 2000. The Rules relied upon by the Examiner are effective for applications filed on or after November 29, 2000. Applicants respectfully submit that Applicants' claim for priority is in accordance with 37 CFR § 1.78. As such, it is respectfully submitted that Applicants' claim for priority is timely filed. It is respectfully requested that the Examiner's rejection of Applicants' claim for priority be withdrawn.

**The Cited Reference Asserted Under 35 U.S.C. §102 is Not Prior Art with Respect to the Present Application**

As Applicants' claim for priority is proper, Applicants rely on the Petition to Correct Inventorship previously filed in the present application together with the Claim for Priority to Aria et al. (U.S. Patent No. 6,527,642). Based upon this claim for priority, Applicants respectfully submit that Aria et al. is not prior art with regard to the present application. It is respectfully requested that the outstanding rejection be withdrawn.

**Conclusion**

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Dated: May 23, 2006

Respectfully submitted,

By

  
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